

ABSTRACT OF THE DISCLOSURE

There is a safety concern about a number of vaccine preservatives in use today, such as formaldehyde, phenol, organic mercury (thiomersal) or betapropiolactone for safety reasons. In a few vaccines, 2-phenoxyethanol has been used as a vaccine perservative, but has not gained widespread use, because the preservative effect is inferior to e.g. thiomersal. Applicant has found that the preservative effect of a mixture of 2-phenoxyethanol and para hydroxybenzoates, (e.g. methyl-, ethyl-, propyl- or butyl-, p-hydroxybenzoate) is more effective than 2-phenoxyethanol alone and that this mixture, called TF-1, exerts a preservative effect which is comparable to that of thiomersal or chloroform in vaccines. Although the preservative effect of TF-1 is satisfactory for securing the microbial stability of the vaccine, none of the constituents in TF-1 are considered as critical in terms of toxicity for the vaccinated animals or humans as chloroform or organic mercury compounds, traditionally used for the same purpose.